

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PAUL G. CAREY, JESSE B. THOMPSON,  
NICOLAS J. COLELLA and KENNETH A. WILLIAMS

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Appeal No. 1999-0715  
Application 08/486,173

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ON BRIEF

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Before KIMLIN, WARREN and PAWLIKOWSKI, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 4-8 and 24. Claims 9-14, the other claims remaining in the present application, stand withdrawn from consideration.

Claim 1 is illustrative:

1. A process of electrically interconnecting electrodes of electronic components comprising:

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providing at least one conductive metal strip constructed to enable interconnection between electrodes of components to be electrically interconnected;

providing a metal-based material composed of a silver-silicone paste mixed with a hardening agent; and

securing the at least one conductive metal strip to the electrodes using the metal-based material intermediate the metal strip and the electrode.

In addition to the state of the art found in appellants' specification, the examiner relies upon the following reference as evidence of obviousness:

Arndt	2,423,922	Jul. 15, 1947
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Appellants' claimed invention is directed to a process of electrically interconnecting electrodes of electronic components. The process comprises utilizing a material composed of a silver-silicone paste and a hardening agent to secure a conductive metal strip to the electrodes. According to appellants, "[e]lectrical interconnects made by this invention have shown no degradation under high current testing while having a very low contact resistance value and have eliminated the solder-caused breakage problem for thin solar cells" (page 2 of brief, penultimate paragraph).

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Appealed claims 1, 4-8 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Arndt in view of the acknowledged state of the prior art.

Upon careful consideration of the opposing arguments presented on appeal, we will not sustain the examiner's rejection.

The examiner is correct in finding that Arndt discloses the interconnection of electrodes with a material comprising silver and a synthetic resin (column 2, lines 12-13; column 4, lines 6-14). Arndt does not teach the presently claimed silver-silicone paste mixed with a hardening agent. To remedy this deficiency of Arndt, the examiner relies upon what he characterizes as the admitted prior art of appellants' specification, viz, "[t]he prior art admission (N.B. page 6 lines 5-10 of appellants [sic, appellants'] specification) establishes that both the silicone plastic adhesive and hardening agent envisioned for use by appellants are KNOWN and COMMERCIALY AVAILABLE" (page 4 of answer, second paragraph).

The examiner's reliance upon the alleged prior art

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admission by appellants is the fatal flaw in the rejection.

Appellants

emphasize that no such admission has been made in their specification. Appellants stress at page 7 of the brief that "Claim 1 does not merely recite a silver-silicone paste but sets forth that the 'paste' is 'mixed with a hardening agent, and

nowhere do Appellants state that this claimed mixture is known or available commercially". Appellants also submit at page 8 of the brief that they "pointed out in the Amendment filed September 19, 1997, that the 'step of providing a metal-based material 'composed of a silver-silicone paste mixed with a hardening agent . . .'' was not taught by the prior art" (paragraph 3). Accordingly, although the examiner correctly finds that the specification indicates that both the silver-silicone paste and hardening agent were known in the prior art and commercially available, there is no admission in appellants' specification that a mixture of the paste and

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hardening agent was known in the art. Consequently, since the foundation of the examiner's rejection is deficient in fact, it must fall.

One final point remains. While we agree with appellants that there is no admission in their specification that the claimed mixture of paste and hardening agent was known in the

prior art, it is not clear to us that appellants are categorically stating that it was unknown in the prior art to formulate the claimed silver-silicone paste commercially available from CMI with a curing or hardening agent. We point out that Example I at page 6 of appellants' specification states

that the silver-silicone paste consists of uncured silicone resin. Hence, a legitimate question is raised whether it was conventional in the art to incorporate a curing or hardening agent in the silver-silicone paste. If the answer to that question is in the affirmative, it remains to be developed on the present record whether it would have been obvious for one

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of ordinary skill in the art to employ such a prior art composition to electrically interconnect components of electrical devices. In order to resolve this issue, this application is remanded to the examiner for the purpose of taking appropriate action.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

The application is remanded to the examiner for the reasons set forth above.

This application, by virtue of its "special" status, requires an immediate action.

REVERSED

EDWARD C. KIMLIN )  
Administrative Patent Judge )  
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CHARLES F. WARREN	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
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BEVERLY A. PAWLIKOWSKI	)	
Administrative Patent Judge	)	

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HENRY P. SARTORIO  
DEPUTY LABORATORY COUNSEL FOR PATENTS  
LAWRENCE LIVERMORE NATIONAL LABORATORY  
P.O. BOX 808 L 703  
LIVERMORE, CA 94550